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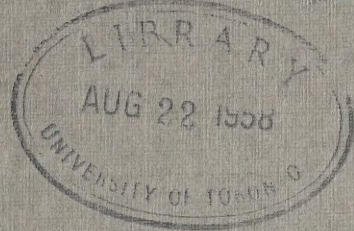
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Ontario Hydro-Electric
Inquiry Commission
1922-1925

Secretary's report

COPY FOR MR. J. ALLAN ROSS




HYDRO-ELECTRIC INQUIRY COMMISSION

GENERAL REPORT

OTTAWA SYSTEM

JOSEPH H. V. BOWER
SECRETARY



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Figure 1

NO INFORMATION TO BE FOLLOWS

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February, January
1925

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[Handwritten signature]

Toronto, Ontario,
June 11th, 1923.

Hydro-Electric Inquiry Commission,
W. D. Gregory, Esq., Chairman,
Toronto, Ontario.

re: General Report - Ottawa System

Mr. Chairman and Gentlemen:-

In accordance with your instructions, a general report on the Ottawa System has been made, along the lines approved of by the Commission on January 2nd. The work has been done under my direct personal supervision as per your instructions.

The report of Messrs. Price, Waterhouse & Company, together with the report on this system by the Commission's Consulting Engineer, Mr. Walter J. Francis, has been used in the preparation of this report, and in addition complete studies have been made of all evidence taken at the public hearing held in connection with the system.

The report falls naturally into two parts. The first part includes sections entitled "Historical Sketch", "Physical", "General Economics", and "General Relations". These sections are largely a recital of facts, but in addition a considerable amount of evidence has been quoted in order to fairly represent the claims and counter-claims made in connection with the contentious matters brought to the attention of the Commission. The second part of the report entitled "Summary" is merely intended to direct attention to those points which appear to require special consideration by the Commission.

All figures used in this report have been carefully checked by a representative of Messrs. Price, Waterhouse & Company. Evidence and reports forming the basis of this report are appended hereto, and in order to facilitate reference to the documents in question, on the right-hand margin of the report throughout will be found abbreviated references.

Yours very truly,

J. W. P. Power
Secretary

Washington, D.C.
June 11, 1975

U.S. House of Representatives
Committee on Assassinations
Washington, D.C.

THE ASSASSINATION OF MARTIN LUTHER KING, JR.

Dr. Martin Luther King, Jr.

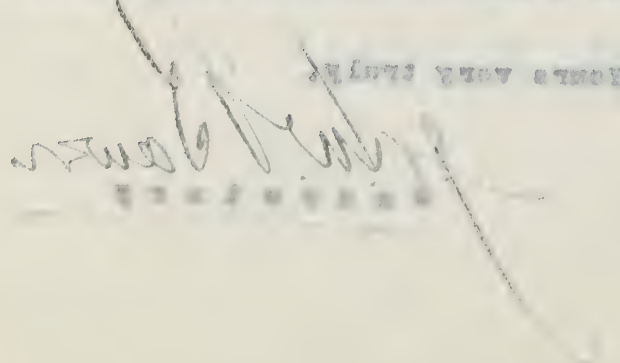
In accordance with your invitation, a report on the progress of the investigation is being submitted to you. The report is being submitted to you in the form of a letter, as requested by the Committee on Assassinations. The report is being submitted to you in the form of a letter, as requested by the Committee on Assassinations.

The report of the Committee on Assassinations is being submitted to you in the form of a letter, as requested by the Committee on Assassinations. The report is being submitted to you in the form of a letter, as requested by the Committee on Assassinations.

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The report of the Committee on Assassinations is being submitted to you in the form of a letter, as requested by the Committee on Assassinations. The report is being submitted to you in the form of a letter, as requested by the Committee on Assassinations.

All reports must be submitted to the Committee on Assassinations in the form of a letter, as requested by the Committee on Assassinations. The report is being submitted to you in the form of a letter, as requested by the Committee on Assassinations.

Yours very truly,


OTTAWA SYSTEMHISTORICAL SKETCH

The City of Ottawa is supplied by the Hydro-Electric Power Commission with power which is purchased from the Ottawa & Hull Power & Manufacturing Company, Limited. The township of Nepean is also supplied and a number of rural lines are in operation and under construction in the surrounding district. The Ottawa Electric Company also supplies power in the city in competition with the Commission.

The system had its inception on July 31st, 1907, when the Commission contracted with the City of Ottawa to supply the power required for its municipal operations. On the same day, the Commission signed a contract with the Ottawa & Hull Power & Manufacturing Company to purchase sufficient electric power to meet the requirements of the city. Under this contract the company agreed to sell to the Commission 1,500 electrical horse-power at the flat rate of \$15.00 per horse-power year, and to supply additional power at the same rate up to 1,000 horse-power, making a maximum of 2,500 horse-power. The period of the contract was ten years and in it the company agreed to deliver the power to the city at the city limits at Chaudiere Bridge.

WJV.
p.4.

DISCUSSION

The City of Ottawa is supplied by the City-

Electric Power Commission with power which is purchased

from the Ottawa & Hull Power & Light Commission.

Electricity is also supplied to the City of Ottawa

from the Ottawa & Hull Power & Light Commission.

The Ottawa & Hull Power & Light Commission

is a public utility company and is a corporation

incorporated in the City of Ottawa.

The Commission was organized on July 1st, 1907.

At that time the Commission was organized with the City of Ottawa as

its sole owner and the City of Ottawa as its sole customer.

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its sole owner and the City of Ottawa as its sole customer.

The power requirements of the city increased very rapidly and soon exceeded the maximum amount available under the contracts mentioned above, and on December 8th, 1910, amendments to both these agreements were signed and made effective, increasing the maximum horse-power available to 4,000 horse-power at the same rate of \$15.00 per horse-power year.

WJF.
p.4.

The load of the city continued to increase rapidly. In 1912 about 3,100 horse-power was being purchased, and by the end of 1913 the demand again exceeded the total amount included in the contracts, thus necessitating further provision for power.

An agreement between the Commission and the company was drawn up on December 8th, 1913, superseding all previous agreements between the two parties and providing for the delivery of from 5,000 horse-power to 20,000 horse-power, at rates ranging from \$14.00 per horse-power for the minimum requirements to \$11.00 per horse-power when the load on the system will have reached 18,000 horse-power. This agreement is to remain in force for a period of thirteen years, and provides, at the option of the Commission, for its renewal for one or two further terms of ten years, notice to be given to the company by the Commission of its intention to renew the agreement at least two years before the expiration of the term of years then in force.

WJF.
p.5.

The power requirements of the city increased

very rapidly and soon exceeded the station capacity. In 1961, the city council authorized the city to issue bonds to the amount of \$1,000,000 to be used for the purchase of additional power.

The bond of the city continued to increase rapidly. In 1962, the city council authorized the city to issue bonds to the amount of \$1,000,000 to be used for the purchase of additional power.

The bond of the city continued to increase rapidly. In 1963, the city council authorized the city to issue bonds to the amount of \$1,000,000 to be used for the purchase of additional power.

An agreement between the city and the power company was made up in December 1963, 1964, regarding

all previous agreements between the city and the power company.

Under the agreement, the city will have the right to purchase power from the power company at a rate of \$1.00 per kilowatt-hour.

The city will also have the right to purchase power from the power company at a rate of \$1.00 per kilowatt-hour.

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The city will also have the right to purchase power from the power company at a rate of \$1.00 per kilowatt-hour.

There is a clause in this contract prohibiting the company from supplying power to any municipality, person, firm or corporation while such municipality, person, firm or corporation is supplied by the Commission; and at the same time the Commission is restricted to purchasing power entirely from the company for use in Ottawa or within a radius of five miles of the company's power house.

P.W.
Ex.2,
P. 3.

The Order-in-Council approving this agreement is dated March 4th, 1914, and is as follows:

"Upon the recommendation of the Hydro-Electric Power Commission of Ontario, the Committee of Council advise that the accompanying contract entered into between the Ottawa & Hull Power & Manufacturing Company and the said Commission, bearing date the eighth day of December, 1913, for the supply of from 5,000 to 19,000 horse-power of electrical power at or near the Corporation of the City of Ottawa, be approved by Your Honour."

WJP.
P.5.

On February 2nd, 1914, an agreement between the Commission and the city was drawn up to conform to the revised agreement made during the preceding December with the Ottawa & Hull Power & Manufacturing Company. This agreement with the city, which supersedes all previous agreements, provides for the purchase of power at rates equivalent to those paid by the Commission to the company, together with operating costs, interest on the capital investment made by the Commission, and payments to the reserve accounts. It is

to remain in force for a period of ten years from the date of the first delivery of power under this agreement, and may be continued, at the option of the city, for one or two further consecutive terms of ten years each.

Towards the end of the fiscal year 1917, the Commission placed an order with the company for three blocks of 500 horse-power each, in accordance with the terms of the contract of December 8th, 1913, thus bringing the total power taken to 6,500 horse-power. The additional power was required for the new pumping station of the city located at Lemieux Island. This was put into service on November 12th, 1917, and utilized approximately 2,000 electrical horse-power. The commencement of operations of this pumping station brought about the cancellation of the contract of June, 1916, between the city and the company for the temporary supply of 750 electrical horse-power to the old Queen Street pumping station, the use of which was discontinued.

WJY.
p.6.

During August of 1920 the company put into operation their No. 2 power house, then recently completed, and shut down their No. 1 plant which had been supplying power to the system. Plant No. 2 then took up the service without any interruption to the operation of the system. The Commission's new metering equipment, which in 1919 replaced the original instruments in use, was later moved

from Plant No. 1 to Plant No. 2 and tested from time to time to insure accurate service.

The demand on the system increased steadily, necessitating orders for additional blocks of power from time to time. The load during October, 1921, 9,098 horse-power, is an increase of about 1,500 horse-power over that in 1920. This was in excess of the amount officially ordered from the power company, and steps were at once taken to provide for further increases. In 1922, the peak demand was 11,394 horse-power, and the load early in 1923 was over 12,000 horse-power.

WJP.
p.7.

COPY
Consequent to applications for electricity made to the Commission, an agreement was entered into with the Township of Nepean on August 25th, 1921, under provisions of the Power Commission Act, "to provide for the supply of electrical energy or power to individual users". An Order-in-Council dated September 20th, 1921, authorized this contract, and also authorized the Commission to construct twelve miles of transmission lines to serve rural districts.

This was followed by Orders-in-Council under dates of November 29th, 1921, and June 23rd, 1922, granting the authority to further construct 6.61 miles and 6.50 miles of transmission lines, respectively.

The construction of rural lines on the system was commenced in September, 1921. The first twelve miles were completed in February, 1922, and certain consumers in Nepean were then served with electrical energy. Six

From 1945 to 1947, the power plant was operated at a level of 10,000 horsepower. In 1948, the power plant was operated at a level of 15,000 horsepower.

The demand on the system increased steadily.

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In 1949, this was in excess of the amount originally

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15,000 horsepower.

additional miles of rural lines were completed during October, 1922, all the rural lines serving a total of eighty-five rural consumers at that date. Since then application for electricity has been made by twenty-five other additional customers, and it is stated that the lines to supply these are now under construction.

The rural lines are being served with power from the Ottawa municipal distributing system. The power supplied is being metered by the city which is reimbursed to include the cost of operation, transformation and line losses at an agreed rate of \$21.00 per horse-power, thus showing operating and transfer costs of \$8.00 per horse-power in addition to the wholesale cost of power to the city, which is now \$13.00 per horse-power. On June 29th, 1922, the Commission authorized payments to the city for all power supplied to the rural lines of the system at the above rate of \$21.00 per horse-power.

WJF.
p.9.

In connection with rural lines it may be well to note that the Ontario Government has a special act known as the Rural Hydro-Electric Distribution Act, 1921, whereby it may provide up to one-half the capital necessary for primary rural lines under certain conditions. Section 4 of the Act reads as follows:

00000000, 1988, all the other lines would have been 00000000

Statistical analysis was performed using the SPSS 16.0 software package.

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Let's not waste time. Let's go home now. Let's go home now.

Continued on page 10

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"Where power is supplied to a rural power district under the provisions of the Power Commission Act and amendments thereto there may be paid to the municipality or commission distributing the power in such rural power district under the recommendation of the Hydro-Electric Power Commission of Ontario, and the order of the Lieutenant-Governor in Council, a sum not exceeding fifty per cent. of the capital cost of constructing and erecting in the rural power zone primary transmission lines and cables required for the delivery of power in such rural power districts."

WJF.
p.9.

COPY

PHYSICALGeneral

The Ottawa System lies north and east of the Rideau System. It now comprises that territory in the Province of Ontario within a radius of about ten miles from the City of Ottawa and includes within its boundaries part of the County of Carleton. At the present time the rural lines extend to Bell Corner and Merivale to the south and west of the City of Ottawa.

WJT.
p.9.

Speaking broadly, the system consists of a distributing system supplied by a large privately-owned generating station which serves the city through underground cables, and some rural lines served from the municipal distributing system of the city.

Generating Stations and Other
Sources of Power Supply

The entire power supply for the Ottawa System is purchased from the Ottawa & Hull Power & Manufacturing Company which owns two plants on the Ottawa River at Chaudiere Falls known respectively as Plant No. 1 and Plant No. 2. The water supply for both plants is led from an arch dam about 22 feet high equipped with concrete piers

SECRET

Annex

The system consists of the following components:

- 1. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 2. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 3. The system is designed to provide a secure and reliable means of communication between the various components of the system.
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Speaking broadly, the system consists of a

- 1. The system is designed to provide a secure and reliable means of communication between the various components of the system.
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Operating Systems and Other
Software of the System

- 1. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 2. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 3. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 4. The system is designed to provide a secure and reliable means of communication between the various components of the system.
- 5. The system is designed to provide a secure and reliable means of communication between the various components of the system.

and wooden stop-logs. This dam is located on the Ottawa River between Ottawa and Hull and is also utilized by the Ottawa Light, Heat & Power Company, as well as by a number of other industries. Plant No. 1, installed in 1902, is situated on Philemon Island above Bridge Street, Hull, Quebec. The water is led through a short concrete head-race to a power house measuring about 90 feet by 180 feet, which contains the following equipment. The initial installation consisted of three Dayton Globe horizontal turbines each of 2,500 horse-power capacity, which are directly connected to three Canadian General Electric 1,500-K. W., 2-phase, 60-cycle, 2,200-volt generators. Six 1,000-kilowatt station transformers step up the energy of these generators to 3 phase, 60 cycles, 11,000 volts. In 1909 there were added two 3,300 horse-power turbines constructed by William Kennedy & Sons, each of which was directly connected to a 2,000-kilowatt, 3-phase, 60-cycle, 11,000-volt generator, made by the Canadian General Electric Company. These units operate at a mean net head of 32 feet. It is understood that the regular operation of this plant was modified soon after the Ottawa & Hull Power & Manufacturing Company completed their new plant, No. 2, and that it has since then been maintained as a stand-by and as an additional source of power during certain periods.

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Plant No. 2, put into operation during August of 1929, gets its water from the dam through a concrete head-race 300 feet wide and 430 feet long, and is situated adjacent to Plant No. 1. The power house is of concrete and is about 200 feet long by 300 feet wide, and also utilizes a mean net head of 32 feet.

This plant is designed for an ultimate installation of four 7,500 horse-power turbines. The installed equipment at the present time consists of one J. M. Voith 7,500 horse-power horizontal turbine and one Boving 7,500 horse-power horizontal turbine. These are directly connected to two 6,750-K.V.A., 3-phase, 60-cycle, 2,300-volt generators made by the Canadian General Electric Company. The voltage is raised to 11,000 volts by means of individual Belts-X banks of transformers directly connected to the generators. The two present units operate regularly at about 25 per cent. over their normal rating. It is stated that one additional unit of the same size has been ordered and will be put into Plant No. 2 during the autumn of 1923.

The power supply to the Commission is measured by the Company's meters and checked by the Commission's meters installed in the power house of Plant No. 2, and it is then transmitted to the distributing station of the city through underground cables at 11,000 volts. The Ottawa & Hull Power & Manufacturing Company also sells large blocks

Plaintiff No. 1, who has been advised by the court

of the fact that the court has ruled in favor of the defendant

and that the court has ruled in favor of the defendant

and that the court has ruled in favor of the defendant

and that the court has ruled in favor of the defendant

and that the court has ruled in favor of the defendant

This case is being heard by the court

and that the court has ruled in favor of the defendant

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Plaintiff No. 2 during the summer of 1988.

The court ruled in favor of the defendant

of the court's order and ordered by the court

and that the court has ruled in favor of the defendant

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of power to the Ottawa Light, Heat & Power Company, to the Hull Electric Company, and to a large number of important industries located in the district of the city.

The Ottawa & Hull Power & Manufacturing Company is said to be contemplating the development of 30,000 or 40,000 horse-power in 1923 or 1924 at Bryson, Quebec, on the Ottawa River at Calumet Island.

WJF.
p.10
p.12
p.13.

Undeveloped Power Sites

There are numerous undeveloped power sites within easy transmission distance of the Ottawa and the Rideau Systems, that include land and water rights both in the Provinces of Quebec and Ontario or in Quebec alone. A list of the more important of these is given on pages 14 and 15 of our Consulting Engineer's report.

WJF.
p.13.

Miscellaneous Power Plants

There are several hydro-electric developments of magnitude in the district besides the plants of the Ottawa & Hull Power & Manufacturing Company, a description of which is given on pages 16, 17 and 18 of our Consulting Engineer's report.

Transmission Lines

Up to October 15th, 1922, the Commission had constructed a total of eighteen miles of low voltage trans-

of power to the extent of 1000 horse power, for
 the full electric company, and as a large number of im-
 portant industries located in the district of the city.
 The power is sold to the city of New York at a rate of 10 cents per
 kilowatt-hour.

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It will be seen that the development of 10,000
 at 10 cents per kilowatt-hour is 1000 horse power, and
 the power is sold to the city of New York at a rate of 10 cents per
 kilowatt-hour.

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There are several other points of interest
 and importance in the district of the city and the State
 of New York, and it is not possible to give a full
 description of them in this report. A full
 description of them is given in the report of the
 committee on the subject of the power of the city of New York
 and the State of New York.

11

There are several other points of interest
 and importance in the district of the city and the State
 of New York, and it is not possible to give a full
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 committee on the subject of the power of the city of New York
 and the State of New York.

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There are several other points of interest
 and importance in the district of the city and the State
 of New York, and it is not possible to give a full
 description of them in this report. A full
 description of them is given in the report of the
 committee on the subject of the power of the city of New York
 and the State of New York.

mission lines forming a 4,150-volt network, supplying the rural districts in Napan.

There are no high voltage transmission lines in the system that are owned by the Commission. The City of Ottawa gets its power supply at 11,000 volts delivered through the high voltage transmission lines of the Ottawa & Hull Power & Manufacturing Company to the Ottawa City limits, at Chaudiere Bridge, from where it is taken to the Ottawa substation at the same voltage by means of underground cables which form part of the city's electrical distributing system.

WJP.
p.19.

Transforming & Distributing Stations

The Commission does not own any transforming substations on the system. The City of Ottawa steps down its power for municipal distribution by means of its own transforming equipment, and also steps down the power for transmission to the rural district for which it receives remuneration as already noted at the rate of about \$8.00 per horse-power in addition to the price billed to the city for power supply.

WJP.
p.19.

Local Distributing Systems

With the exception of the rural lines already mentioned, the Commission does not distribute retail power

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to consumers on the system. The Commission acts as a wholesale distributor only, and in the City of Ottawa the electricity is distributed by a local commission appointed solely for that purpose. It is understood that the accounting for this city is done in accordance with the standard accounting system of the Commission and the details are given in the Annual Reports.

WJP.
p.19
& 20.

COPY

GENERAL ECONOMICSCapital Investment

As all power required for the Ottawa System is purchased from, and delivered to a receiving station of the local Hydro-Electric Commission of the City of Ottawa by the Ottawa and Hull Power & Manufacturing Company, the Commission's investment in this system is very small.

Up to the end of the fiscal year 1920, the only property owned by the Commission in connection with the system was certain metering equipment in the power house of the Ottawa and Hull Power & Manufacturing Company, valued at \$1,009.57. All transformers, transmission lines and other equipment utilized in distributing power in the City of Ottawa are owned by the local Hydro-Electric Commission of Ottawa. P.W. p.7.

Under authority of Orders-in-Council dated September 20th, 1921, November 29th, 1921, and June 23rd, 1922, the Commission commenced the construction of rural lines for the purpose of serving rural customers in Nepean Township and up to September 30th, 1922, had expended \$32,053.12 on such lines. P.W. p.4. P.W. p.3.

any, the Commission's involvement in this system is very

UP to the end of the fiscal year 1930, the
 only property owned by the Government in connection with
 the system was certain property belonging to the power
 house of the Ottawa and Hull Town & Manufacturing Com-
 pany valued at \$1,000,000. All transmission, communi-
 cation and other equipment utilized in this system were
 in the list of items now owned by the local power-house
 companies of Ottawa.

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The following table shows the Commission's investment in the system from 1913 to 1922 inclusive:

	<u>Fiscal years ending October 31st</u>							
	1913 to 1915	1916	1917	1918	1919	1920	1921	1922
Metering Equipment	\$432	\$432	\$432	\$591	\$1,009	\$1,009	\$1,009	\$1,009
Rural Lines	-	-	-	-	-	-	4,698	22,053
Totals	\$432	\$432	\$432	\$591	\$1,009	\$1,009	\$5,707	\$33,062

† to September 30th, 1922, only.

P.W.-p.25

In accordance with the recommendations of the Commission and pursuant to section 4 of the Rural Hydro-Electric Distribution Act, 1921, Orders-in-Council under the dates previously mentioned, and in the amounts set forth below, were passed providing that 50% of the cost of constructing the primary rural lines in Nepean Township should be borne by the Province of Ontario as follows:

Date of Order-in- Council.	Estimated Miles of Lines.	Number of Applicants for Power.	Estimated Cost of Primary Lines		
			100%	50%	
Sept. 20, 1921	12.00	31	\$15,146.00	\$7,573.00	P.W.
Nov. 29, 1921	6.61	27	7,176.83	3,588.42	p.4.
June 23, 1922	6.50	14	8,275.16	4,137.58	
	25.11	92	\$30,595.99	\$15,298.00	

As at October 31st, 1921, the engineers of the Commission estimated that additional funds in the amount of \$90,000.00 would be required for the construction of rural lines in Nepean Township during the years 1922 and 1923.

The following table shows the Commission's

investment in the system from 1911 to 1921 (inclusive):

Fixed Capital Assets

Year	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Investment	100,000	150,000	200,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000
Total	1,000,000	1,500,000	2,000,000	2,500,000	3,000,000	3,500,000	4,000,000	4,500,000	5,000,000	5,500,000	6,000,000

in accordance with the recommendations of the

Commission and approved by resolution of the Board of

Electricity Commissioners, 1921, Hydro-Electricity and

other projects mentioned, and in the amount of £1,000,000.

The following table shows the cost of construction of the

primary transmission lines in Hydro-Electricity Board in 1921:

Provision of Capital as follows:

Year	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Capital	100,000	150,000	200,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000
Operating	100,000	150,000	200,000	250,000	300,000	350,000	400,000	450,000	500,000	550,000	600,000
Total	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000	1,000,000	1,100,000	1,200,000

As at January 1st, 1921, the estimate of the

Commission estimated that additional funds in the amount of

£20,000.00 would be required for the construction of the

lines in Hydro-Electricity Board during the years 1921 and 1922.

If these expenditures are carried out, the total investment in the system at the close of the fiscal year 1923 will amount to approximately \$96,000.00, a part of which will be borne by the Province as provided for above.

Reserve for Renewals

No provision was made up to October 31st, 1921, for the renewal of the properties in the system, it having been stated that in the opinion of the engineers of the Commission no provision was considered necessary. In the future, however, a renewals account will probably be set up for rural lines.

At October 31st, 1921, the total depreciable capital was the whole of the capital investment in the system, namely, about \$6,000.00, while no reserve for renewals had yet been established at that date. At September 30th, 1922, the depreciable capital was about \$33,000.00, and if the proposed extensions be carried out will be about \$96,000.00 at October 31st, 1923, unless the Province assumes part of the costs of the rural lines, which would correspondingly reduce the depreciable capital.

W.J.V.
p.37

Our Auditors have stated that although the capital investment is small, it is their opinion that the practice of the Commission should be uniform in providing for renewals, and the Ottawa System should not be an exception in this respect.

P.W.
p.8.

It is the Commission's view that the total investment in the project at the time of the first year 1925 will amount to approximately \$10,000,000, a part of which will be borne by the Province as provided for above.

Section 10

No provision was made up to October 1921 for the removal of the project from the system. It has been stated that in the opinion of the engineers of the Commission no provision was necessary. In the future, however, a provision should be made up to the time of the removal of the project from the system.

COPY

At October 1921, the total investment in the project was the same as the original investment in the system, namely, \$10,000,000, while as at October 1925 the total investment had been increased to \$12,000,000. At October 1921, the total investment in the project was \$10,000,000, and at October 1925 it was \$12,000,000. The increase of \$2,000,000 was due to the fact that the project had been enlarged at that time. At October 1921, the total investment in the project was \$10,000,000, and at October 1925 it was \$12,000,000. The increase of \$2,000,000 was due to the fact that the project had been enlarged at that time.

The Commission has stated that it is its policy to provide for the removal of the project from the system in the event of a change of circumstances. It is the Commission's view that the total investment in the project at the time of the first year 1925 will amount to approximately \$10,000,000, a part of which will be borne by the Province as provided for above.

Reserve for Sinking Fund

The sinking fund payments by the City of Ottawa together with interest accumulated thereon to October 31st, 1921, amounted to \$88.62, which is applicable to the investment in the metering equipment of the Commission in the Ottawa and Hull Power & Manufacturing Company's generating plant.

P.W.
p.8.

The first rural line expenditures were made in 1921 so that the collection of sinking fund chargeable against these rural lines will doubtless be commenced in the years 1926 and 1927, or five years after the date of first operation.

Reserve for Contingencies

Up to the end of 1921 no reserve for contingencies had been established. Our Consulting Engineer expressed the opinion that with the operation of rural lines and the heavy losses which might be occasioned to them by accident, a suitable rate per horse-power consumed to rural customers or other means be found so that a sufficient sum might be available to be drawn on in case of emergencies. When a fund of about \$5,000.00 will have been built up the rates can be re-adjusted to suit the conditions after several further years of operation.

H.J.
p.37

Summary of Operations

The mining and processing of the bit of iron
 ore with interest estimated between 20 and 25%
 1951, amounted to \$20.00, which is significant of the interest
 cost in the mining operation of the Dominion in the
 mine and will have a significant impact on the
 mine. The first year's operations were made in
 1951, and the collection of bit of iron ore
 against these costs will be significant of interest in
 the year 1951, and the year after the year of
 first operation.

Summary of Operations

Up to the end of 1951, the operations for
 had been established. For domestic operations, the
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 about \$20.00 will have a significant impact on the mine
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 of operation.

Accounts Receivable

The accounts receivable of \$19,483.21 due by the City of Ottawa as at October 31st, 1921, was paid in full prior to December 31st, 1921.

Results of Operation

Under the terms of a contract mentioned heretofore, the Commission supplies power to the City of Ottawa on a cost basis, which includes the cost of operating, maintaining, repairing, renewing and insuring the lines, stations and works, interest on the capital invested in the system, and an amount sufficient to provide sinking fund for the repayment of the capital in thirty years.

The following is an operating account for the four years ending October 31st, 1921, showing total revenue, cost of power purchased, operating expenses and fixed charges (cents omitted):

	1918	1919	1920	1921
<u>Revenue</u>				
From the City of Ottawa	\$82,276	\$86,844	\$95,622	\$104,087
<u>Cost of operating, including portion of administrative expenses</u>				
Power purchased from the Ottawa & Hull Power & Manufacturing Co., Ltd.	\$81,611	\$86,218	\$94,700	\$103,329
Operating Expenses	627	572	854	690
Interest on capital invested	28	40	50	50
Provision for sinking fund	10	14	18	18
Total Costs	\$82,276	\$86,844	\$95,622	\$104,087

Inventory of Receipts

The amount received of \$10,408.31 one by the City of Ottawa as a reward prize, 1961, was paid in full prior to December 31st, 1961.

Inventory of Expenditures

Under the terms of a contract between the City of Ottawa and the Commission, the Commission was to provide the City of Ottawa with a staff house, which included the cost of operating, maintenance, repairs, painting and cleaning the house, furniture and other items on the original inventory in the house, and an amount sufficient to provide cleaning for the equipment of the house. The following is an accounting of the same:

Total House Cleaning			
1961	1962	1963	1964
1,000.00	1,000.00	1,000.00	1,000.00
2,000.00	2,000.00	2,000.00	2,000.00
3,000.00	3,000.00	3,000.00	3,000.00
4,000.00	4,000.00	4,000.00	4,000.00
5,000.00	5,000.00	5,000.00	5,000.00
6,000.00	6,000.00	6,000.00	6,000.00
7,000.00	7,000.00	7,000.00	7,000.00
8,000.00	8,000.00	8,000.00	8,000.00
9,000.00	9,000.00	9,000.00	9,000.00
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41,000.00	41,000.00	41,000.00	41,000.00
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95,000.00	95,000.00	95,000.00	95,000.00
96,000.00	96,000.00	96,000.00	96,000.00
97,000.00	97,000.00	97,000.00	97,000.00
98,000.00	98,000.00	98,000.00	98,000.00
99,000.00	99,000.00	99,000.00	99,000.00
100,000.00	100,000.00	100,000.00	100,000.00

	1918	1919	1920	1921	
Total Horse-power purchased and billed	5829	6158	6764	7654	P.W.
Cost per horse-power billed	\$14.11	\$14.10	\$14.14	\$13.59	Ex.4.

From the above, it will be noted that the City of Ottawa has been charged with the total cost of all power supplied to it excepting provision for renewals and contingencies as previously commented upon.

The following table indicates the annual cost figures as percentages of the total cost of power per annum:

COPY

	Fiscal years ending October 31, 1918	1919	1920	1921	
Power purchased	99.20	99.27	99.05	99.28	
Overhead & General Expenses	0.76	0.66	0.89	0.66	W.F.
Interest	0.03	0.06	0.05	0.05	p.36
Sinking Fund	0.01	0.01	0.01	0.01	
	100.00%	100.00%	100.00%	100.00%	

A comparison of the cost per horse-power purchased by the Commission and the cost to the City of Ottawa as billed by the Commission is as follows:

	Cost per h.p. purchased	Cost per h.p. to City of Ottawa	
1918	\$14.00	\$14.11	
1919	14.00	14.10	P.W.
1920	14.00	14.14	p.8.
1921	13.50	13.59	

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Total 1944-1945 1943-1944 1942-1943 1941-1942
1944 1943 1942 1941
1944 1943 1942 1941

From the above, it will be noted that the bill of

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The rural lines in Nepean Township were placed in operation in February, 1922, and as the accounts for the year ending October 31st, 1922, are not yet available, they have not been included in this report.

However, it might be well to mention that power required for these rural lines is purchased from the City of Ottawa at \$21.00 per horse-power or approximately \$8.00 per horse-power more than is paid for power supplied to it; this difference is represented by the estimated cost of \$4.90 for transformation, \$3.00 for a proportionate part of the use of the distribution system and \$1.00 for transmission at 10,000 volts.

In addition to the cost of power of \$21.00 per horse-power, the customers on the rural lines pay the operating and maintenance expenses of the lines, interest on capital invested therein, provision for renewals and sinking fund on a *twenty* year basis.

POWER DATA

Population Served

The district served by the Ottawa System is both urban and rural, nearly all of the load being in the City of Ottawa. The 1921 "Municipal Statistics" of the Province of Ontario for 1921, gives a total population of about 146,000 for that

The total area in Japan Township was 1,100
 as reported in January, 1942, and as the records for the
 year ending October 31st, 1942, are not yet available, they
 have not been included in this report.

However, it might be well to mention that power
 required for these three lines is purchased from the city
 at a rate of \$11.00 per kilowatt-hour or approximately \$2.00
 per kilowatt-hour more than is paid for power supplied to it.
 This difference is represented by the estimated cost of
 \$1.00 per kilowatt-hour, \$2.00 for a hypothetical cost of
 the use of the city's power and \$1.00 for losses.
 Mission of 10,000 miles.

COPY

It is noted on the part of power of \$11.00 per
 kilowatt-hour, the difference on the total line for the power-
 ing and maintenance expenses of the lines, interest on
 capital invested therein, provision for taxes and sinking
 fund on a 40-year basis.

FOURTH DATA

Population Survey

The district covered by the Census Bureau is both
 urban and rural, nearly all of the land being in the city of
 Detroit.
 "Detailed description" of the population of Detroit
 for 1921, gives a total population of about 1,600,000 for that

portion of Carleton County which is tributary to the Ottawa System. At December 31st, 1921, the total population in the City of Ottawa was 110,708 with 11,532 consumers served by the local municipal commission.

WJF.
p.20.

The Ottawa Light, Heat & Power Company serves the rest of the consumers in that city, and is also the sole distributor of power in the Town of Eastview and in the district between Britannia and Ottawa. From the total of about 58,000 population for the suburban territory included as the Ottawa System, about 10,000 might be deducted as the population served by the Ottawa Light, Heat & Power Company. During 1922 the Commission had constructed about eighteen miles of rural lines in the Township of Nepean, thus serving a rural population of about 3,000 or 4,000, the number of consumers being about eighty-five at October, 1922, and the remaining tributary population of about 20,000 or 22,000 can only be supplied by a fairly extensive system of rural lines.

The City of Ottawa was billed with 7,654 horse-power in the fiscal year 1921. In 1922 the total power billed to the system was 9,136.7 horse-power, of which an amount of about 25 horse-power was taken at the end of 1922 by the rural customers in Nepean Township. Judging by the steady increase in the number of consumers taking power from the municipal distributing system in the City

portion of Canadian territory which is tributary to the
St. Lawrence system. At present, 1911, the total popula-
tion in the city of Ottawa was 118,700 and 11,000 con-
sumers served by the local municipal commission.

The Ottawa Light, Heat & Power Company serves

the rest of the community in that city, and its main
supply is distributed at power in the town of Kanata and in
the district between Britannia and Ottawa. From the total
of about 24,000 population for the municipal territory it
serves as the Ottawa system, about 12,000 might be deemed
as the population served by the Ottawa Light, Heat & Power
Company. During 1911 the Commission had conducted about
eighteen miles of travel along in the Township of Kanata,
thus serving a rural population of about 2,500 or 3,000,
and number of consumers being about eight-five or ninety.
1911, and the remaining tributary population of about
10,000 or 12,000 can only be supplied as a public utility
also system of rural lines.

The City of Ottawa was filled with 7,500 houses

power in the fiscal year 1911. In 1911 the total power
filled in the system was 7,184,700 kilowatt-hours, or about an
amount of about 15 kilowatt-hours was taken at the end of
1911 by the rural customers in Kanata Township. During
by the steady increase in the number of consumers taking
power from the municipally distributed system in the City

of Ottawa each year. It is expected that the increase during 1923 will be about 600 consumers of all classes taking about 1,000 horse-power. This growth can be accounted for by the fact that the City of Ottawa sells power to consumers at a somewhat lower rate than its competitor, the Ottawa Light, Heat & Power Company.

The following table gives in detail the number of consumers at the end of the fiscal year 1921 in the City of Ottawa, the only place served by the Commission. It also gives the approximate horse-power billed in 1921, and the average horse-power per consumer in 1921:

Population	110,708	
Number of Consumers	11,532	
Percentage of Consumers to Population ...	10.5	
Horse-power Billed in 1921	7,654	WJF.
Billed horse-power per Consumer	0.66	p.21
Billed horse-power per Capita	0.06	

Growth of Market and Ultimate Sources of Power Supply

Since the commencement of operations of the Ottawa System in 1907, the growth of the demand of the Ottawa Municipal System has been fairly rapid. It has increased from about 1,200 horse-power in 1907 to an average of about 9,100 horse-power in 1922, with a maximum peak of about 11,400 horse-power during that year. The following table shows the growth of the population of the City of Ottawa, and the number of consumers taking the Commission's

power from 1913 to 1921 inclusive:

Year	Total Number of Consumers	Population
1913	6,736	100,180
1914	7,350	100,180
1915	8,538	101,786
1916	9,207	100,183
1917	10,007	100,500
1918	10,436	100,861
1919	10,393	107,732
1920	10,959	107,732
1921	11,632	110,708

WJF.
p.22.

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The problem of serving rural customers is difficult, the average number of consumers per mile of transmission line being small. The experience of the Commission up to the present time indicates that only three or four consumers per mile, on the average, are obtainable. At October 31st, 1922, the number of consumers served by the Commission in the rural districts of the Ottawa System averaged 4.7 per mile of line.

The situation at the present time is that the Ottawa System can purchase an abundant power supply at a very favourable price, thus enabling the City of Ottawa to sell electricity for lighting and other purposes at lower rates than those in most Canadian cities. That the people are satisfied with the service rendered by the municipal distributing system is self-evident from the fact that each year since its inception the

number of consumers and the demand for power have increased. The domestic power market in the City of Ottawa at the present time has been well covered, and unless the city grows rapidly a large increase in the load of the Commission can only take place by further accretions of consumers from the privately-owned company and by the increased use of current per capita. Both of these factors are evidently influencing the growth. On the other hand, the indications are that there is likely to be a large demand for power for pulp and paper developments, for smelting, and for general manufacturing purposes, provided large blocks of power could be made available in the Ottawa district. The development of one or two of the sites previously mentioned, which it is anticipated will be carried out in the very near future, will provide ample capacity to supply the demands for electricity of the Ottawa System and district for a long time to come. If the Ottawa and Rideau Systems be extended southwards and eastwards and the St. Lawrence System be extended northwards, it is possible that in the future inter-connecting lines may be constructed so that any of these systems might receive power from the water powers of the Ottawa and Gatineau Rivers, or from the water powers of the St. Lawrence River if these be developed. Because of the networks of high voltage transmission lines now in existence, the Commission could purchase large blocks of power under wholesale conditions from the

privately-owned plants mentioned above, and should be enabled to successfully compete with other distributors of power in the districts of these systems. It would appear feasible that agreements could be made with large private producers of power to prevent duplication of transmission lines in the districts served by the Commission and thus permit the Commission to serve the whole of the eastern portion of Ontario without competition.

WJP.
p.24.

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GENERAL RELATIONS

On the 13th of March, 1923, pursuant to their request, representatives from the Ottawa Electric Company appeared before this Commission and voiced several complaints against the administration of the Ottawa Hydro-Electric Power Commission. During the course of the hearing it was brought out that the Ottawa Electric Company had been in existence for over twenty-five years. In 1900 the Company was practically wiped out by the big fire in Ottawa and during the rebuilding of plant and lines in the following years, another company, known as the Consumers' Electric Company was organized and obtained a franchise from the city in 1901.

Ev.
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Competition took place between the two companies, and as a result rates were gradually reduced. In 1904 the two companies got together and a Bill was introduced in the Dominion Legislature allowing the Ottawa Electric Company to absorb the Consumers' Electric Company. This Bill was defeated by so small a majority that it was again introduced in 1905 and it became certain that it would pass. The promoters admitted that the intention was to raise the rates and in view of the

Letter
J.A. Ellis
to Sir
Adam Beck
3/9/08.

HEPC.
Report
1909
p.118.

GENERAL REMARKS

On the 12th of March 1912, pursuant to their
request, representatives from the Hydro-Electric
Commission and the Hydro-Electric
Commission met for the purpose of discussing
the subject of the Hydro-Electric
Commission. During the course of the
meeting it was brought out that the Hydro-Electric
Commission had been in existence for over twenty-five years.
In 1907 the Hydro-Electric Commission was re-organized
and its name changed to the Hydro-Electric
Commission. At that time the Hydro-Electric
Commission was re-organized and its name
changed to the Hydro-Electric Commission.
and obtained a Hydro-Electric Commission from the Hydro-Electric
Commission in 1911.
Competition took place between the two com-
panies, and as a result the Hydro-Electric
Commission was re-organized and a bill was
passed in the Hydro-Electric Commission allowing the
Hydro-Electric Commission to operate the Hydro-Electric
Commission. This bill was passed by a majority
of 10 to 9. The Hydro-Electric Commission was re-organized
in 1912 and is now known as the Hydro-Electric
Commission. The Hydro-Electric Commission was re-organized
in 1912 and is now known as the Hydro-Electric
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monopolistic condition that this would bring about the Municipality of Ottawa decided to buy out the assets of the Consumers' Company, consisting of a distributing plant. Their authority to do this was by virtue of special legislation in 1894 and a clause in the Consumers' Electric Company's franchise.

The city then entered into a contract for the supply of power, but the entire transaction was attacked by the Ottawa Electric Company which brought an action to have the purchase set aside for want of authority. It was held by the Court of Appeal that the municipality had no authority to contract for the purchase of power for a period exceeding the term of the Municipal Council then in office. Steps were taken to bring the action before the Privy Council, but in the interim the first Power Commission Act was passed which allowed the municipality to purchase power from the Power Commission. This of course obviated the necessity of a Privy Council Appeal and the suit was settled.

12 Ont.
Law
Reports.
p.290.

One of the difficulties between the two companies had been the cutting of rates and one of the objects, which the city had in requesting the Power Commission to enter this field, was to act as a regulator of rates for the city.

At the present time the Ottawa Electric Company claims to have twice as many customers and to sell three times as much power as the Ottawa Hydro-Electric Commission.

Ev.
3754

Special attention is paid to the following:

THE CITY OF NEW YORK
OFFICE OF THE COMMISSIONER OF THE LAND OFFICE
IN SENATE CHAMBERS
ALBANY, N. Y.
JANUARY 1, 1900.

SIR:

I have the honor to acknowledge the receipt of your letter of the 29th inst., in relation to the application for a lease of the land owned by the City of New York, and to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,
Yours very truly,
J. J. H. [Signature]

JOHN J. H. [Name]

One of the difficulties between the two countries
and have the feeling of relief and at the same time
the city and is organizing the Peace Commission in many
these cities, was to act as a regulator of relief for the city
At the present time the Peace Commission is working
also to have relief as well as money and to help
also as much as possible on the basis of the Peace Commission

The Commission on the other hand has the entire street lighting load.

The first complaint voiced by the Ottawa Electric Company was: "That the Hydro service at Ottawa is conducted for the benefit of the patrons of the Hydro Electric who are very much in the minority, being a grave injustice to all the other citizens, very much in the majority, who do not use Hydro service, and many of whom do not use electric service." In connection with this complaint it was stated by the company "that the profit derived from street lighting enables the Hydro management in this city to discriminate in rates or in methods of charging. It would appear that electricity is being sold in some cases below cost for reasons that are obvious."

Ev.
3753

Ev.
3758

Mr. J. A. Ellis of the Ottawa Hydro-Electric Commission pointed out that during the years 1916 to 1921, the Commission lost \$23,000.00 on street lighting. It was acknowledged that the domestic rates were low, being 2 cents, 1 cent and one-half cent, and in fact Mr. R. T. Jeffrey stated that Ottawa was the only municipality with the one-half cent rate at the present time. Mr. Jeffrey further stated that a recommendation had been made to the Ottawa Commission by the Hydro-Electric Power Commission of Ontario to discontinue the one-half cent rate, but this recommendation had never been acted upon.

Ev.
3766

The Committee on the part of the entire staff

invested funds.

The first committee report by the General

the General was: "That the General should be

convinced that the results of the General of the General

General the new staff in the General. The General

injection in all the other elements, very much as the

majority, the General and the General, and many of them

in the General's report, "In connection with this

committee is also stated by the General "that the General

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committee. It would appear that the General's report

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Mr. J. A. Hill of the General Electric

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Mr.
J. A. Hill

Mr.
J. A. Hill

Mr.
J. A. Hill

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In defense of retaining the one-half cent domestic rate, Mr. Ellis stated that during the past year the Ottawa Commission had shown a gross surplus of \$85,733.71 of which \$36,743.43 was set off against depreciation, leaving a surplus of \$48,990.28.

Ev.
3821.

He said:

"How on earth could we, out of a total revenue from street lighting of \$44,633.90, make all that money? If every cent of the street lighting was profit it would not account for our surplus."

Ev.
3821.

And later:

"The profit comes absolutely and entirely from domestic lighting and commercial."

Ev.
3826

Mr. Ellis gave as one reason for the retention of the one-half cent rate the fact that the Ottawa Electric Company also operated a gas works and offered a discount of five per cent. on gas bills if the consumer took both gas and electric service from the company.

He said:

"They charge too much for gas and they discriminate as against Hydro customers in their gas bills, in other words, a customer who will take electric current from the company gets his gas 5% cheaper than if he takes his electric current from us."

Ev.
3829.

A further claim was made by the Ottawa Electric Company to the effect that the books of the Ottawa Hydro-Electric Commission were not audited properly. It was shown, however, that all vouchers were passed upon by the municipal auditor, and that at least once a year the auditor from the Hydro-Electric Power Commission, Head Office,

is liable for retaining the one-half cent

domestic rate, Mr. Hill stated that during the past

year the Electric Commission has taken a great interest in

the, and that the rate of \$10.00 per kilowatt hour

prevalent, leaving a surplus of \$10,000.00.

He said:

"We are now in a position to pay a total dividend
of \$10,000.00, which is
the amount of the
surplus. It is our policy
to pay out the surplus
for our surplus."

and that

"The result of this is a surplus of \$10,000.00,
which is the amount of the
surplus."

Mr. Hill said that the surplus of the

of the one-half cent rate was the first time the Electric

company has received a surplus and that a dividend of

five per cent on the bill is the maximum that can

and electric service from the company.

He said:

"That electric rate was the first time that
the rate was reduced in this
city, in other words, a dividend was paid
to the electric company from the surplus of the
rate. It is our policy to pay out the surplus
for our surplus."

A further claim was made by the Electric

company of the right to the bonus of the Electric

Electric Commission was not a valid property. It was

stated, however, that all surplus was paid over to the

municipal utility, and that at least one-third of the surplus

from the Hydro-Electric Power Commission, had been

checked over the accounts to see that they were properly classified, and that the books were in proper shape.

Ev.
3788.

Mr. R. C. McCollum from the head office of the Commission stated that the municipal auditor at Ottawa was responsible for the municipal Hydro-Electric accounts and that the Commission, through its auditors, installed a similar bookkeeping system in every Hydro municipality, in order that there might be uniformity in the keeping of accounts, particularly with respect to the classification of expenses.

Ev.
3850

He said:

"I have never felt any need to worry about the Ottawa accounts or their revenue."

Ev.
3856.

Mr. Dion, of the Ottawa Electric Company, pointed out that, while the potential water powers in the vicinity of Ottawa were large, the present power situation was serious, all the company's power was being used up and during the past winter their steam stand-by plant was working a great portion of the time. He stated that the one-half cent rate encouraged the use of electricity for heating and cooking, and said:

Ev.
3801

"The wisest policy under these conditions it seems to me would be not to go very much out of our way to coax the building of big loads. If a customer comes to me and wants electricity, he is going to get it, but why coax, by this very low rate, to have them increase their loads. We are going into a blind alley, and Hydro is going into it and we have got to follow, we cannot turn down our customers, that is why we reconsider the situation is very serious."

Ev.
3802

Mr. Ellis in reply to the above statement said:

"With regard to the half-cent rate, there is a very difficult problem that we have got to deal with, it is entirely different from any other municipality, and that is the cooking by electricity and the half cent rate is what encourages it, there is no doubt about that. With regard to the power, let me say that the half cent rate has been bound up with this question of the supply of power, and I do not know of any place in Canada that is more favourably situated in regard, not only to the present supply of power but a future supply of power than the City of Ottawa."

Ev.
3823

He pointed out that there were many large undeveloped power sites in the vicinity of Ottawa, that the growth of the city was slow, and that

"... there is any quantity of water power available, there is no doubt in the world about that ... we won't need it all or anything like it."

Ev.
3824

Extracts from our Consulting Engineer's report covering the growth of the market and the ultimate sources of power supply are given on pages 22, 23, 24 and 25 of this report.

Another complaint made was that the Ottawa Power Commission paid in taxes only \$1,675.21 and that the total taxes of the Ottawa Electric Company in 1922 amounted to \$78,000.00.

Ev.
3756

The following is an extract from the evidence in connection with the discussion of taxes:

Mr. Ellis - "... Speaking for the Commission,
we do not care whether we pay taxes
or not ..."

Q - "You would not offer any opposition
to a change in the by-law which
would put you on the same footing
as others in the matter of taxes?"

Ev.
3812

A - "No ..."

COPY

Mr. Ellis - " . . . Specimen for the Commission.
we do not care whether we pay taxes
or not - "

" - " The water was taken and deposited
in a reservoir in the higher hills
which was used as the water supply
at the time of the water at present.

" - " No . . . "

COPY

S U M M A R Y

In the foregoing sections of this report, comment has been introduced from time to time to make the various statements clear. In addition to statements of fact, obtained from the Auditor's and Engineer's reports, certain evidence has been quoted in connection with the claims advanced by representatives of the Ottawa Electric Company. It is believed that the evidence quoted fairly represents the claims and counter-claims made in connection with the contentious matters brought to the attention of the Commission. In order to direct attention to the matters on which the Commission may desire to give decisions hereunder is given a brief summary of the points which appear to require special consideration.

Inception of System - ("Historical Sketch" - p.1.)

The system had its inception on July 31st, 1907, when the Commission contracted with the City of Ottawa to supply power required by the municipality. On the same date, the Commission signed a contract with the Ottawa & Hull Power & Manufacturing Company to supply power in various amounts at a fixed price. As the requirements of the City of Ottawa grew, contracts for a supply of power were amended and changed to suit the changed conditions.

Physical Characteristics
of the System - ("Physical" - p.8)

The system consists of a distributing system supplied by a large privately owned generating station which serves the city through underground cables, and some rural lines served from the municipal distributing system of the city.

Commission Wholesale Distributor

With the exception of the rural lines, the Commission does not distribute retail power to consumers on the system, but acts as a wholesale distributor only.

Capital Investment - ("General Economics" - p.14)

Up to the end of the fiscal year 1920, the Commission only owned metering equipment in the power house of the Ottawa & Hull Power & Manufacturing Company valued at \$1,009.57. Under authority conferred September 20th, 1921, November 29th, 1921, and June 23rd, 1922, the Commission constructed rural lines in Nepean Township and their investment as at September 30th, 1922, amounted to \$32,053.12 on such lines. In accordance with Section 4 of the Rural Hydro-Electric Distribution Act of 1921, half of this cost is borne by the Province of Ontario.

According to the estimates of the engineers of the Commission, additional funds for the construction of rural

of the system - (p. 3)

The system consists of a distribution system supplied by a large privately owned generating station which serves the city through a network of lines, and some other lines serving from the municipal distribution system of the city.

Electric Distribution

With the exception of the city lines, the Commission does not distribute retail power to consumers as the system, but acts as a wholesale distributor only.

COPY

Particulars - (p. 14)

Up to the end of the fiscal year 1924, the Commission only owned generating equipment in the power house at the station a Hall power & manufacturing company owned at 11,000 H.P. Later another generating system was built, 1925, 1926, 1927, and 1928, the Commission generated retail lines in various locations and their investment as at September 30th, 1928, amounted to \$12,000,000. In connection with section 4 of the Royal Charter Electric Distribution Act of 1921, half of this cost is borne by the Province of Ontario.

According to the estimates of the engineers of the Commission, additional funds for the construction of retail

lines in this district during the period 1922 to 1923 will amount to \$90,000.00. If these expenditures are made at the close of the fiscal year 1923, the total investment in the system will be approximately \$95,000.00, a part of which investment will be provided by the Province.

Reserve for Renewals - ("General Economics" - p.16)

Up to October 31st, 1921, no provision was made for renewals in respect of depreciable capital, which amounted at that date to about \$5,000.00. Depreciable capital at September 30th, 1922, amounted to \$33,000.00 and at October 31st, 1923, if present plans are completed, the amount of the depreciable capital will be materially increased. We understand that the Commission has set up a renewal reserve for rural lines from the date of commencement of operation.

Reserve for Sinking Fund - ("General Economics" - p.17)

Amounts in respect of sinking fund have been provided for in accordance with the Power Commission Act.

Reserve for Contingencies - ("General Economics" - p.17)

Up to October 31st, 1921, no reserve for contingencies had been established. Our Consulting Engineer expresses the opinion that, with the operation of rural lines and the heavy losses which might be occasioned to them by accident, under the present investment a fund of about \$5,000.00 should be built up.

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Accounts Receivable - ("General Economics" - p.18)

There are no accounts receivable by the Commission outstanding against the system,--the amount of \$19,465.21 was due at October 31st, 1921, but was paid in full prior to December 31st, 1921.

Total Revenues - ("General Economics" - p.18)

The results of operation show that revenue has met all charges during the period of operation. The revenue increased from \$82,276.00 in 1918 to \$104,087.00 in 1921. It is to be noted, however, that power bills to the City of Ottawa did not provide for renewals and contingencies.

Power Costs - ("General Economics" - p.18)

Our Consulting Engineer shows that in the year 1921 99.28% of the cost of power to consumers is represented by the purchase price. The balance of .72% being made up of overhead and general expense, interest and sinking fund. In the year 1921, the cost of the power purchased was \$13.50 per horse-power and the cost to the City of Ottawa was \$13.59 per horse-power.

The rural lines purchased their power from the City of Ottawa at the rate of \$21.00 per horse-power, the extra cost representing the cost of transforming a proportionate part of the use of the distribution system and \$1.00 for transmission at 10,000 volts. In addition the rural customers

General Accounting - ("General Accounting" - p.10)

There are no accounts receivable by the Government

which are outstanding against the Government, and which are

due to the Government, and which are due to the Government

in full prior to December 31st, 1921.

General Accounting - ("General Accounting" - p.10)

The results of operations show that revenue

has not all charges during the period of operations. The

revenue increased from \$22,750.00 in 1919 to \$17,200.00

in 1921. It is to be noted, however, that power bills to

the City of Ottawa and the City of Ottawa for power and gas

amounted to

General Accounting - ("General Accounting" - p.10)

One General Accounting shows that in the year

1921 \$2,250 of the cost of power to consumers is represented

by the purchase price. The balance of 4.75% being made up of

overhead and general expenses, interest and sinking fund. In

the year 1921, the cost of the power purchased was \$12,80

per horse-power and the cost to the City of Ottawa was \$12.12

per horse-power.

The total bills purchased from the

City of Ottawa at the rate of \$11.00 per horse-power, the entire

cost representing the cost of maintenance, depreciation

part of the cost of the electric system and \$1.00 per

horse-power of 12,000 value. In addition the total expense

pay operating and maintenance expenses of their lines, interest on capital invested, and provision for renewals and sinking fund.

Population Served & Growth of Market - ("General Economics"
- p.20)

The total population of the area tributary to the Ottawa System is 146,000 persons. The total population of the City of Ottawa at the end of 1921 was 110,708 of which number 11,832 were served by the local Hydro Commission, the Ottawa Electric Company serving the rest of the consumers in that city. This company is also the sole distributor to the Town of Eastview and in other districts contiguous to the City of Ottawa. Thus it will be noted that the number of consumers taking power from the Commission in relation to the population of the district is relatively small and this is accounted for by the fact that the Ottawa Electric Company is in competition with the Commission and serves a greater number of customers than does the Ottawa Hydro-Electric Commission.

The growth and demand of the Ottawa Municipal System has been fairly rapid, increasing from a load of about 1,200 horse-power in 1907 to an average of about 9,100 horse-power in 1922, the maximum peak for 1922 being about 11,400 horse-power. The growth and the power demands have been much in excess of the increase in population, which from 1913 to

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization. The second part outlines the specific procedures for recording transactions, including the use of standardized forms and the requirement for double-checking entries.

The third part of the document addresses the issue of data security. It states that all data must be stored securely and access must be restricted to authorized personnel only. The fourth part discusses the importance of regular audits to ensure the accuracy and integrity of the records.

The fifth part of the document provides a summary of the key points discussed. It reiterates the importance of accurate record-keeping, proper data security, and regular audits. The sixth part concludes the document with a statement of intent to implement these procedures effectively.

The seventh part of the document discusses the role of the management team in ensuring the success of the record-keeping system. It states that the management team must provide the necessary resources and support for the system to function properly. The eighth part discusses the importance of training staff on the new procedures.

The ninth part of the document provides a detailed description of the record-keeping system. It includes information about the software used, the format of the records, and the location of the records. The tenth part discusses the importance of maintaining the system up-to-date.

The eleventh part of the document discusses the importance of regular backups of the records. It states that backups must be performed regularly and stored in a secure location. The twelfth part discusses the importance of having a disaster recovery plan in place.

The thirteenth part of the document provides a summary of the key points discussed. It reiterates the importance of accurate record-keeping, proper data security, and regular audits. The fourteenth part concludes the document with a statement of intent to implement these procedures effectively.

The fifteenth part of the document discusses the role of the management team in ensuring the success of the record-keeping system. It states that the management team must provide the necessary resources and support for the system to function properly. The sixteenth part discusses the importance of training staff on the new procedures.

The seventeenth part of the document provides a detailed description of the record-keeping system. It includes information about the software used, the format of the records, and the location of the records. The eighteenth part discusses the importance of maintaining the system up-to-date.

The nineteenth part of the document discusses the importance of regular backups of the records. It states that backups must be performed regularly and stored in a secure location. The twentieth part discusses the importance of having a disaster recovery plan in place.

1917 was steady at about 100,000 persons, increasing to only 110,700 in 1921. Thus it would appear that, with the services afforded by the introduction of hydro power and the distribution of power by the private companies, the power market in the City of Ottawa is at the present time being very well covered, and it would appear that the Ottawa Commission can only increase its load by further accretions of consumers from the privately owned company or by the increased use of current per capita.

Relations with Ottawa Electric Company - ("General Relations" - p.26)

The Ottawa Electric Company claim to have twice as many customers and to sell three times as much power as the Ottawa Hydro-Electric Commission. The Commission on the other hand has the entire street lighting load. The company had three main complaints which may be summarized briefly as follows:

1. Criticism of the rates charged by the local Commission which are on the basis of 2¢, 1¢ and ½¢ per kilowatt hour.
2. That the books of the Ottawa Hydro-Electric Commission were not properly audited.
3. That the Ottawa Hydro-Electric Commission was practically exempt from taxation, paying in 1922 only \$1,675.21, while the Ottawa Electric Company in the same year paid \$78,000.00.

Referring to the above complaints it would not appear that any unfair advantage was being taken by the local Hydro-Electric Commission of Ottawa in their rate making, and

1917 was nearly at issue 1917, the purpose, intention
 to only 110,000 in 1917. There is no other report that with
 the services rendered by the Corporation to the power
 and the allocation of power to the public companies,
 the power market in the City of Ottawa is at the present
 time being very well satisfied, and it would appear that the
 power situation was only improved in 1917 by further
 extension of services from the publicly owned company
 to the Government and to various private firms.

YONGE-ELECTRIC POWER COMPANY - (General Information)
 - p. 20

COPY

The Yonge Electric Company claim to have taken
 as many customers and to sell more power as was given to
 the other Hydro-Electric companies. The Commission on
 the other hand has no other report to the contrary.
 Company has three main objectives which are as follows:

1. To provide power to the public

1. Extension of the power supply to the local
 Commission which are on the basis of 1917
 and 1918.

2. That the power of the Yonge Electric
 Commission was not properly managed.

3. That the Yonge Electric Commission
 was financially sound from 1917 to 1918, paying
 in 1917 only \$1,875,000, while the other Hydro-Electric
 Company in the same year paid \$7,000,000.

Referring to the above mentioned it would not
 appear that any unfair advantage was being taken by the local
 Hydro-Electric Commission of Ottawa in their own market, and

on the contrary that they had built up a very substantial surplus representing profit on the basis of the rates used.

It should be noted that the Hydro-Electric Power Commission of Ontario has recommended to the local Commission that the ~~3~~ rate be discontinued though the recommendation has not been acted on. The Ottawa Electric Company claimed that this low rate encouraged the inefficient use of electricity for purposes such as heating and cooking. This whole question may well be the subject of a report by this Commission.

With respect to the second complaint regarding the auditing of the books of the local Commission, it would appear from the evidence given that these were kept in conformity with the standards as laid down by the Hydro-Electric Power Commission of Ontario, and that the Hydro-Electric Power Commission had exercised due supervision over the matter of keeping their accounts.

Referring to the matter of taxation, it is well to keep in mind that the Hydro-Electric Power Commission of Ontario together with the local Hydro Commission of the City of Ottawa have relatively small amount of capital invested inasmuch as they own and operate no generating station. Consequently a straight comparison between the taxes paid by the Commission and the Ottawa Electric Company is rather misleading. On the other hand, a certain element of unfairness seems to exist in any municipality where a private company

as the majority that they had built up a very substantial
 capital accumulation which in the case of the vast mass.

It should be noted that the House-Committee

from Committee of Finance was recommended to the local

Committee that the 100,000 be distributed among the

representatives and the House-Committee.

Committee advised that this has been recommended the institution

has at least the purpose of having and making.

This whole question may well be the subject of a report by

this Committee.

With regard to the second complaint regarding

the raising of the issue of the local Committee, it would

appear from the evidence that there was some in con-

sideration with the Committee as to the House-Committee

from Committee of Finance, and that the House-Committee

from Committee had exercised the right to have the matter

of making their own.

Referring to the matter of taxation, it is well

to say in this that the House-Committee from Committee of

Finance together with the local House-Committee of the City

at present have relatively small interest in capital taxation

taxation as they are more interested in general taxation. The

presently a slight increase in the House-Committee of the

Committee and the House-Committee is rather small.

Looking to the other side, a certain amount of resistance

seems to exist in the House-Committee as to a private company

and a Commission are in competition and whereby under the provisions of the Power Commission Act, the publicly owned utility is practically exempt from all taxation, while the privately owned enterprise must pay taxes in proportion to the amount of its investment in works and structures. It would appear that where such a condition exists some consideration should be given to the advisability of the local Commission or the Ontario Commission being taxed on the same basis as private companies. Mr. Ellis, Chairman of the local Commission, when discussing the question of taxes at the hearing said: "We do not care whether we pay taxes or not", and when questioned stated that he would not offer any opposition to a change in the by-law which would put his Commission on the same footing as a private company.

